Marquette Law Review

Volume 23
Issue 1 *December 1938*

Article 10

Patents - When Does Substitution Constitute an Invention?

Edmund J. Krzykowski

v. *State,* 126 Wis. 104, 105 N.W. 223 (1905); *Adams* v. *State,* 164 Wis. 223, 159 N.W. 726 (1916).

Evidence of crimes other than the one charged may be admitted when it tends to establish a common scheme or plan embracing the commission of a series of crimes so related to each other that proof of one tends to prove the other, and to show the defendant's guilt of the crime charged. *State* v. *Smoak* (N.C. 1938) 195 S.E. 72, is a case in which the defendant's daughter was murdered by poisoning. Testimony of a mortuary owner respecting the condition of the defendant's second wife after death, which had occurred in a similar manner, was competent. This exception applies to a variety of cases, including lotteries. Two cases involving "numbers" games are: *Commonwealth* v. *Zotter* (Pa. Super. 1938) 200 Atl. 264; and *Lewis* v. *State* (Ga. App. 1938) 195 S.E. 285. In both of these cases, the court allowed the admission of evidence of previous sales of "numbers" in order to establish the presence of a common scheme or plan underlying defendant's conduct. The showing of previous crimes to establish the presence of a scheme, plan, or series is proper also in fraud cases. *People* v. *Humphrey* (Cal. App. 1938) 81 P. (2d) 588, was the prosecution of an attorney for suing on fictitious claims, a series of which were allowed to be shown. Another instance is a prosecution for rioting. When the defendant claimed that she was merely an innocent spectator, evidence was properly admitted to show her participation in previous riots. *Commonwealth* v. *Apriceno* (Pa. Super. 1938) 198 Atl. 515. The scope of this exception is not limited to the examples mentioned, but extends also to arson, forgery, adultery—in short, to any crimes which may be shown to have such interrelation that proof of one tends to prove the other, and to any type of crime which, through repetition, takes on the aspect of a series committed according to a common scheme or plan.

JAMES HACKETT.

Patents—When Does a Substitution Constitute an Invention?—The plaintiff sought to enjoin the infringement of a patent upon the process of sizing paper. The defendant claimed that the process involved the substitution of one material for another, and that therefore the plaintiff could not claim a monopoly upon the process. The substitution had long been recognized as possible. Manufacturers, however, had never been able to utilize the chemical because its cost was prohibitive. The plaintiff's process made practical the use of the material by substantially lowering the cost of the chemical.

The court *held* that a monopoly should not be sustained, because a mere substitution of one material for another does not necessarily involve inventive skill, especially where such material had long been known by the industry but had not been used only because of the excessive cost involved. *Raffold Process Corp.* v. *Castenea Paper Co.,* 98 F. (2d) 355 (1938).

The general rule, as set forth in *Hotchkiss* v. *Greenwood,* 11 How. 248, 13 L.ed. 683 (1850), is that a mere substitution of materials in a known process or preparation of a product cannot be regarded as an invention, since such substitution affords nothing more than evidence of judgment and skill in the selection and adaptation of materials. Applying this general rule, it was held that the mere use of oiled silk as a covering for umbrellas was not an invention, since prior attempts to use such material had failed only because of the heavy and sticky quality of the fabrics then available. *Goldman* v. *Polan,* 93 F. (2d) 797 (C.C.A. 4th, 1938). Likewise, the mere substitution of one material for another does not amount to an invention, even where the new material is more

effective, if the substituted material is obviously better suited for the particular purpose. For example, a copper container substituted for a glass container in electrolytic condensers, it being known that copper was the better material, was not an invention. *Mershion* v. *Sprague Specialties Co.,* 92 F. (2d) 313 (C.C.A., 1937). It has been held that the substitution of one material for another known to possess the same qualities, though not in the same degree, or the mere carrying forward of a more extended application of the original idea, involving a change only in form, proportion, or degree and resulting in the accomplishment of the same end in the same way and by substantially the same means is not patentable, even though better results are secured. *Sloan Filter Co.* v. *Portland Gold Mining Co.,* 139 Fed. 23 (C.C.A., 1905). To illustrate, the substitution of sheet metal for cast metal in a patented device was held not to be an invention. *McCloskey* v. *Toledo Pressed Steel Co.,* 30 F. (2d) 12 (C.C.A. 6th, 1929).

There are recognized exceptions to these general principles: (1) If the substitution involved a new mode of construction; (2) if it developed new properties and uses of the article made; (3) where it produces a new mode of operation; (4) where it results in a new function; (5) when it is the first practical success in the art in which the substitution was made; or (6) where practice shows its superiority to consist not only in greater utility but also in more efficient action; it may amount to an invention. *Low* v. *McMaster,* 266 Fed. 518 (C.C.A. 1920).

The determination as to whether a substitution amounts to an invention is to be found in the light of the circumstances of the particular case. Thus, in *Gasoline Products Co.* v. *Coe,* 87 F. (2d) 550 (App. D.C., 1936), it was held that where the applicant, by using chromium alloy tubes in an oil cracking apparatus in place of iron, clearly accomplished at least an increase in the efficiency of operation and a decided saving in cost, it being the first practical success in the industry, he had a patentable invention.

An important exception to the general principle was stated in *Columbia Metal Box Co.* v. *Halper,* 220 Fed. 912 (C.C.A. 2d, 1915), where the court held that whenever a new method of manufacture is involved in the use of a new material, invention should be held to exist if the new method would not occur to one ordinarily skilled in the art. The exception may also exist where the known use of the material was in part so far removed from the new use as to be wholly non-analogous, and not suggestive of the new use. *In re Covey,* 20 C.C.P.A. 962, 63 F. (2d) 983 (1933). Another exception may arise from the novel use of the article producing a result different in kind. *Smith* v. *Goodyear Dental Vulcanite Co.,* 93 U.S. 486, 23 L.ed. 952 (1876). When the substitution has accomplished a result which those skilled in the art had long and vainly sought to effect, the evidence that it involved something beyond the skill of the calling is so persuasive that it generally resolves the inquiry in favor of its patentability. Therefore, the simplicity of the change is immaterial. *United Shoe Machinery Co.* v. *E. H. Ferree Co.,* 64 F. (2d) 101 (C.C.A. 2d, 1933).

It is important that the laws protecting inventive skill keep pace with the rapid industrial progress. In our highly mechanized age of mass production, where the profit on the single item is minute, the smallest change lowering the cost of production or creating a more efficient production is of paramount importance. Hence there is a tendency of the courts to become more lenient in the granting of patents, as is indicated by the adoption of the numerous exceptions to the general principle that a mere substitution is not of itself an invention.

EDMUND J. KRZYKOWSKI.